

***FlyBy Math™* Alignment**
North Dakota Mathematics Content and Achievement Standards
April 2005

Standard 2: Geometry and Spatial Sense

Student understands and applies geometric concepts and spatial relationships to represent and solve problems in mathematical and nonmathematical situations.

COORDINATE GEOMETRY**Benchmark Expectations**

5.2.6 Use ordered pairs in quadrant 1 of a coordinate grid.

***FlyBy Math™* Activities**

--Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

Standard 3: Data Analysis, Statistics and Probability

Students use data collection and analysis techniques, statistical methods, and probability to solve problems.

DATA COLLECTION, DISPLAY, AND INTERPRETATION**Benchmark Expectations**

5.3.1 Read and interpret bar, line, and circle graphs, pictographs, and frequency tables.

***FlyBy Math™* Activities**

--Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs.

--Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions.

Standard 4: Measurement

Students use concepts and tools of measurement to describe and quantify the world.

MEASURABLE ATTRIBUTES, MEASUREMENT SYSTEMS AND UNITS**Benchmark Expectations**

5.4.2. Measure and apply elapsed time; i.e., time zones, schedules, and calendars

***FlyBy Math™* Activities**

--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

MEASUREMENT TOOLS, TECHNIQUES, AND FORMULAS**Benchmark Expectations**

5.4.5. Select and use appropriate units when measuring length, area, and volume

***FlyBy Math™* Activities**

--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

Standard 5: Algebra, Functions and Patterns

Students use algebraic concepts, functions, patterns, and relationships to solve problems.

PATTERNS, RELATIONS, AND FUNCTIONS**Benchmark Expectations**

5.5.1. Analyze patterns represented by tables and graphs

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

--Use tables, graphs, and equations to solve aircraft conflict problems.